

Burns & Scalding: Facts & Prevention

Facts about hot water & burns

- Young children, older adults and individuals with disabilities are at a higher risk for all types of burn injuries, including scalds.
- Young children and older adults, have thinner skin so hot liquids cause deeper burns with brief overexposure.
- Sensory impairments can result in decreased sensation, especially to the hands and feet, so the person may not realize if something is “too hot”.
- An individual’s intellect, perception, memory, judgement or awareness may hinder his/her ability to recognize a dangerous situation.
- Individuals with disabilities may not be able to appropriately respond and remove themselves from a tub filled with hot water.
- Individuals respond differently to water temperature. What feels warm to one individual will feel hot to another.
- Some individuals have reported that water over 100°F feels very “hot” and have reported feeling pain when water temperatures reach 103°F.

How to test your water temperatures*

- Follow the thermometer manufacturer’s recommended instructions for use.
- Measure the hot water temperature prior to heavy use, or at least one hour after, so the hot water has time to recover and heat to its set temperature.
- To ensure accuracy, do not hold the digital thermometer under the running water to measure the temperature.
- Allow the hot water to run for a sufficient amount of time to ensure the water is at its hottest temperature.
- Fill a bowl or cup with hot water.
- Immediately immerse the silver perforated end of the digital thermometer completely into the contained water.
- Keep the digital thermometer in the water until the measurement has stabilized (30 to 60 seconds) then read the temperature.

How long does it take to cause 3rd degree scald burns?

155°F water	1 second
148°F water	2 seconds
140°F water	5 seconds
133°F water	15 seconds
127°F water	1 minute
124°F water	3 minutes
120°F water	5 minutes
100°F water	Safe bathing temperature

How to prevent scald burns

- Check water temperatures daily at various points to insure that the temperature of hot water available to individuals at shower, bathing and hand washing facilities **does not exceed 110°F**
- Limit access to water temperature controls.
- Water heater thermostats may not be very reliable. Most are marked low-medium-high and do not indicate exact water temperature.
- Install mixing valves and aquastats on plumbing systems.
- Install anti-scald devices on faucets and shower heads. Follow manufacturer’s instructions for proper maintenance and calibration of anti-scald devices.
- When filling bathtub, mix the water thoroughly and check the temperature by moving your elbow, wrist or hand (with fingers spread) through the water before allowing someone to get in.
- Provide constant supervision to anyone who may experience difficulty removing themselves from hot water or people who may not recognize the dangers associated with turning on the hot water.

*Directions are for use with digital thermometer from: ThermoWorks, Inc., 270 N. Main Street Suite D, Alpine, Utah 84004, Tel: (801) 756-7705 or (801) 756-8948 web site <http://www.thermoworks.com> **If using another type of water thermometer, follow the manufacturer’s recommended instructions for use.**



References: Title 77: Public Health Part 350 Chapter 1: Section 350.3030;
Scalds: A Burning Issue, American Burn Association, 2000;
Direct Support Person Training, Illinois Department of Human Services, 2010.
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